Author Index to Volume 91

Abdel-Hafez, A.M., see A.-S.F. Obada 91 (1992) 99
Adler, C.L. and N.M. Lawandy, Optical gradient forces on colloidal crystals: generation of spatially complex structures 91 (1992) 354
Al-Hadithi, Y., see C.L.S. Lewis 91 (1992) 71
Awwal, A.A.S., A.K. Cherri and M.A. Karim, Logical equivalence of optical symbolic substitution and shadow-casting schemes 91 (1992) 18

Badziak, J., A. Dubicki and J. Piotrowski, On the possibility of generation of picosecond pulses in an excimer laser by fast periodic *Q*-switching 91 (1992) 147
Baez-Rojas, J.J., S. Ohishi, M. Yamaguchi, N. Ohyama and T. Honda, Visualization of 3D volume data using an optical model 91 (1992) 34
Barakat, R., see Ch. Brosseau 91 (1992) 408
Barner, J., see A. Ghosh 91 (1992) 280
Borgnino, J., F. Martin and A. Ziad, Effect of a finite spatial-coherence outer scale on the covariances of angle-of-arrival fluctuations 91 (1992) 267
Bosch, S., see J. Garcia 91 (1992) 425
Broers, B., H.B. van Linden van den Heuvell and L.D. Noordam, Large interference effects of small chirp observed in two-photon absorption 91 (1992) 57
Brosseau, Ch. and R. Barakat, Dimensionality of the coherency matrix in polarization optics 91 (1992) 408
Bryngdahl, O., see H. Lüpken 91 (1992) 163

Camparo, J.C. and C.M. Klimcak, Resonance shift due to correlated amplitude and frequency variations 91 (1992) 343
Campos, J., see J. Garcia 91 (1992) 425
Cao, Z.Q. and C.N. Ironside, Dispersion relations of multiple quantum well waveguides with arbitrary refractive index profile base period 91 (1992) 203
Carrascosa, M., Photorefractive phase conjugation of an image field: fidelity analysis 91 (1992) 481
Chartier, I., see D.C. Hanna 91 (1992) 229
Cherri, A.K., see A.A.S. Awwal 91 (1992) 18
Choudhary, A., see Q.W. Song 91 (1992) 304
Ciofini, M., see R. Meucci 91 (1992) 444
Čiplys, D., see J. Paškauskas 91 (1992) 46
Clarkson, W.A., A.B. Neilson and D.C. Hanna, Acousto-optically induced unidirectional operation of a ring laser: a feedback mechanism 91 (1992) 365
Coutanceau, M., see J.P. Prenel 91 (1992) 29
Crosignani, B., P. Di Porto and A. Yariv, Slowly-varying approximation and coupled-mode equations in guiding structures 91 (1992) 341

Dainty, J.C., see C.S. Narayanamurthy 91 (1992) 23
De Castro, P.P., see K.H. Tsui 91 (1992) 360
Delisle, C., see L.N. Hazra 91 (1992) 1

Demyanov, A.V., see K.S. Gochelashvily 91 (1992) 66
Di Porto, P., see B. Crosignani 91 (1992) 341
Dirscherl, J., B. Neizert, T. Wegener and H. Walther, A dye laser spectrometer for high resolution spectroscopy 91 (1992) 131
Dooghin, A.V., N.D. Kundikova and B.Ya. Zel'dovich, Phase retrieval from laser beam intensity profiles 91 (1992) 193
Dorsel, A. and B. Geh, Chromatic behaviour of in-phase optical lenses 91 (1992) 180
Dubicki, A., see J. Badziak 91 (1992) 147
Dyakonov, M.I. and A.S. Furman, Theory of symmetry-forbidden second harmonic generation in optical fibers 91 (1992) 489

Federico, A. and O. Martinez, Distortion of femtosecond pulses due to chromatic aberration in lenses 91 (1992) 104
Ferrand, B., see D.C. Hanna 91 (1992) 229
Ferreira, C., see J. Garcia 91 (1992) 425
Filippo, A.A. and M.R. Perrone, Reflectivity measurements of broad-band stimulated Brillouin scattering mirrors 91 (1992) 395
Fujiwara, K., see T. Yoshimura 91 (1992) 168
Furman, A.S., see M.I. Dyakonov 91 (1992) 489

Gaižauskas, E. and G. Gedvilas, Theory of coherent one- and two-photon interaction in a three-level system 91 (1992) 312
Garcia, J., C. Ferreira, J. Campos, S. Bosch, M.S. Millán and M.J. Yzuel, Multichannel rotation-invariant pattern recognition for polychromatic objects using circular harmonic filters 91 (1992) 425
Gedvilas, G., see E. Gaižauskas 91 (1992) 312
Geh, B., see A. Dorsel 91 (1992) 180
Georges, M., see Ph. Lemaire 91 (1992) 260
Georgiev, D., see V. Petrov 91 (1992) 123
Gerry, C.C., Proposal for generating even and odd coherent states 91 (1992) 247
Ghosh, A., J. Barner and P. Paparao, Design of least-mean-square based adaptive optical equalizers 91 (1992) 280
Ghosh, A. and P. Paparao, Preconditioning of real-time optical Wiener filters for array processing 91 (1992) 293
Ginzburg, N.S. and A.S. Sergeev, Superradiance in the layers of excited quantum and non-isochronous classical oscillators 91 (1992) 140
Gochelashvily, K.S., A.V. Demyanov, I.V. Kochetov and L.R. Yangurazova, Fluorescence model of noble gas dimers in pulsed self-sustained discharges 91 (1992) 66
Groza, A.D. and V.L. Strizhevskii, p-Polarized nonlinear surface polaritons near the surface of a saturable self-defocusing medium 91 (1992) 111
Grygiel, K. and P. Szlachetka, Chaos in second-harmonic generation of light. The case of a train of pulses 91 (1992) 241

Haelterman, M., S. Trillo and S. Wabnitz, Dissipative modulational instability in a nonlinear dispersive ring cavity 91 (1992) 401
Han, Y., see L.N. Hazra 91 (1992) 1
Hanna, D.C., A.C. Large, D.P. Shepherd, A.C. Tropper, I. Chartier, B. Ferrand and D. Pelenc, A side-pumped Nd:YAG epitaxial waveguide laser 91 (1992) 229

Hanna, D.C., see W.A. Clarkson 91 (1992) 365
Hariri, S., see Q.W. Song 91 (1992) 304
Harris, M., R. Loudon, T.J. Shepherd and J.M. Vaughan, Noise and gain in sub-threshold laser modes 91 (1992) 383
Harten, P.A., S.G. Lee, J.P. Sokoloff, J.R. Salcedo and N. Peyghambarian, Noise in a dual dye jet hybridly mode-locked near infrared femtosecond laser 91 (1992) 465
Hazra, L.N., Y. Han and C. Delisle, Plane kinoform lenses for axial stigmatism in finite conjugate imaging 91 (1992) 1
He, A.-Z., X.-W. Ni, J. Lu, J.-L. Zhou and Z. Ma, A new definition of laser damage threshold in thin films: optical breakdown threshold 91 (1992) 62
Herrmann, J., see V. Petrov 91 (1992) 123
Herrmann, J., Bistable dark soliton solution in dispersive media with a linear and quadratic intensity-depending refraction index change 91 (1992) 337
Honda, T., see J.J. Baez-Rojas 91 (1992) 34
Honda, T. and H. Matsumoto, Improvement of response speed of a $BaTiO_3$ self-pumped phase-conjugate mirror by crystal heating and beam focusing 91 (1992) 390
Horner, J.L., B. Javidi and J. Wang, Analysis of the binary phase-only filter 91 (1992) 189
Huang, S., see J. Liu 91 (1992) 87

Indebetouw, G. and S.R. Liu, Defect-mediated spatial complexity and chaos in a phase-conjugate resonator 91 (1992) 321
Iparraguirre, I., Transient mode-beating in confocal unstable passive resonators 91 (1992) 218
Ironside, C.N., see Z.Q. Cao 91 (1992) 203

Jagannath, H. and P. Venkateswarlu, Effect of counterpropagating beams on beam fanning in $BaTiO_3$ 91 (1992) 509
Javidi, B., see J.L. Horner 91 (1992) 189
Jeong, J.-M. and M.E. Marhic, All-optical analog-to-digital and digital-to-analog conversion implemented by a nonlinear fiber interferometer 91 (1992) 115
Jitsuno, T., see K. Tsubakimoto 91 (1992) 9
Jones, D.R. and C.E. Little, A 472.2 nm bismuth halide laser 91 (1992) 223

Kanabe, T., see K. Tsubakimoto 91 (1992) 9
Karim, M.A., see A.A.S. Awwal 91 (1992) 18
Key, M.H., see C.L.S. Lewis 91 (1992) 71
Khonina, S.N., V.V. Kotlyar, V.A. Soifer, M.V. Shinkaryev and G.V. Uspleniev, Trochoson 91 (1992) 158
Klimcak, C.M., see J.C. Camparo 91 (1992) 343
Koch, Ch. and H.R. Telle, Bridging THz-frequency gaps in the near ir by coherent four-wave mixing in GaAlAs laser diodes 91 (1992) 371
Kochetov, I.V., see K.S. Gochelashvily 91 (1992) 66
Kotlyar, V.V., see S.N. Khonina 91 (1992) 158
Kubecek, V., Y. Takagi, K. Yoshihara and G.C. Reali, Lithium triborate picosecond optical parametric oscillator 91 (1992) 93
Kuleshov, N.B. and S.S. Sarkisov, Theoretical analysis of electrode raster performance in reliefographic spatial light modulators with signal recording at the substrate side 91 (1992) 416
Kundikova, N.D., see A.V. Dooghin 91 (1992) 193

Large, A.C., see D.C. Hanna 91 (1992) 229
Lawandy, N.M., see C.L. Adler 91 (1992) 354
Le Berre, M., see A.S. Patrascu 91 (1992) 433
Lee, S.G., see P.A. Harten 91 (1992) 465
Lemaire, Ph. and M. Georges, Correction method of secondary reflection effects in measurement of electro-optic coefficient in optically active materials 91 (1992) 260
Lewis, C.L.S., D. Neely, D.M. O'Neill, J.O. Uhomoibhi, M.H. Key, Y. Al-Hadithi, G.J. Tallents and S.A. Ramsden, An injector/amplifier double target configuration for the Ne-like Ge X-ray laser scheme 91 (1992) 71
Li, T. and M.C. Teich, Performance of a lightwave system incorporating a cascade of erbium-doped fiber amplifiers 91 (1992) 41
Little, C.E., see D.R. Jones 91 (1992) 223
Liu, J., S. Huang, W. Qin and J. Yu, Investigation of picosecond relaxation processes in cresyl violet 91 (1992) 87
Liu, L., see Z. Zhang 91 (1992) 185
Liu, S.R., see G. Indebetouw 91 (1992) 321
Loudon, R., see M. Harris 91 (1992) 383
Lü, C., see J.-K. Wang 91 (1992) 77
Lu, J., see A.-Z. He 91 (1992) 62
Lüpken, H., T. Peter, F. Wyrowski and O. Bryngdahl, Phase synthesis for array illuminator 91 (1992) 163

Ma, Z., see A.-Z. He 91 (1992) 62
Macpherson, M.J.D., see K.P. Zetie 91 (1992) 210
Maradudin, A.A., see A.R. McGurn 91 (1992) 175
Marhic, M.E., see J.-M. Jeong 91 (1992) 115
Martin, F., see J. Borgnino 91 (1992) 267
Martinez, O., see A. Federico 91 (1992) 104
Massone, C.A., see K.H. Tsui 91 (1992) 360
Matsumoto, H., see T. Honda 91 (1992) 390
Matsumoto, S. and S. Toyooka, Determination of the dew point using laser light and a rough surface 91 (1992) 5
Mazur, E., see J.-K. Wang 91 (1992) 77
McGurn, A.R., P. Sheng and A.A. Maradudin, Strong localization of light in two-dimensional disordered dielectric media 91 (1992) 175
Meucci, R., M. Ciofini and P. Wang, Analysis of the dynamical behavior of a *Q*-switched CO_2 laser: the linear and the nonlinear regime 91 (1992) 444
Millán, M.S., see J. Garcia 91 (1992) 425
Mitchell, D.J., see L. Poladian 91 (1992) 97
Miyano, K., T. Nishiwaki and A. Tomioka, A simple and accurate method to determine the third-order nonlinear susceptibility of thin films 91 (1992) 501
Müller, R., A theoretical study of the dynamical behavior of single quantum-well semiconductor lasers 91 (1992) 453

Nakai, S., see K. Tsubakimoto 91 (1992) 9
Nakano, H., see K. Tsubakimoto 91 (1992) 9
Nakatsuka, M., see K. Tsubakimoto 91 (1992) 9
Narayanamurthy, C.S. and J.C. Dainty, Real-time holographic photoelasticity using BSO 91 (1992) 23

Nath, C., see A.S. Patrascu 91 (1992) 433
Neely, D., see C.L.S. Lewis 91 (1992) 71
Neilson, A.B., see W.A. Clarkson 91 (1992) 365
Neizert, B., see J. Dirscherl 91 (1992) 131
Nevière, M., see R. Reinisch 91 (1992) 51
Ni, X.-W., see A.-Z. He 91 (1992) 62
Nishiwaki, T., see K. Miyano 91 (1992) 501
Noordam, L.D., see B. Broers 91 (1992) 57
Nugent, K.A., Coherence induced spectral changes and generalized radiance 91 (1992) 13

Obada, A.-S.F. and A.M. Abdel-Hafez, Amplitude-squared and frequency sum squeezing in the three-level atom 91 (1992) 99
Ohishi, S., see J.J. Baez-Rojas 91 (1992) 34
Ohyama, N., see J.J. Baez-Rojas 91 (1992) 34
O'Neill, D.M., see C.L.S. Lewis 91 (1992) 71

Paparao, P., see A. Ghosh 91 (1992) 280, 293
Paškauskas, J. and D. Čiplys, Optical waveguiding in thermooptically perturbed surface layers 91 (1992) 46
Patrascu, A.S., C. Nath, M. Le Berre, E. Ressayre and A. Tallet, Multi-conical instability in the passive ring cavity: linear analysis 91 (1992) 433
Pelenc, D., see D.C. Hanna 91 (1992) 229
Penman, C., Development of coherence in the high-gain Compton free-electron laser 91 (1992) 377
Perrone, M.R., see A.A. Filippo 91 (1992) 395
Peter, T., see H. Lüpken 91 (1992) 163
Petrov, V., D. Georgiev, J. Herrmann and U. Stamm, Theory of cw passive mode-locking of solid state lasers with addition of nonlinear index and group velocity dispersion 91 (1992) 123
Peyghambarian, N., see P.A. Harten 91 (1992) 465
Pimentel, N.P., see K.H. Tsui 91 (1992) 360
Piotrowski, J., see J. Badziak 91 (1992) 147
Pogossian, S.P., A new method to determine the refractive index of planar optical waveguides 91 (1992) 334
Poladian, L., A.W. Snyder and D.J. Mitchell, Low-interaction solitary waves 91 (1992) 97
Polidori, G., see J.P. Prenel 91 (1992) 29
Porcar, R., see J.P. Prenel 91 (1992) 29
Prenel, J.P., R. Porcar, G. Polidori, A. Texier and M. Coutanceau, Wavelength coding laser tomography for flow visualizations 91 (1992) 29

Qin, W., see J. Liu 91 (1992) 87

Ramsden, S.A., see C.L.S. Lewis 91 (1992) 71
Reali, G.C., see V. Kubecek 91 (1992) 93
Reinisch, R., M. Nevière, P. Vincent and G. Vitrant, Radiated diffracted orders in Kerr-type grating couplers 91 (1992) 51
Ressayre, E., see A.S. Patrascu 91 (1992) 433
Risset, C.A. and J.M. Vigoureux, An elementary presentation of the Goos–Hänchen shift 91 (1992) 155
Rizvi, R.A. and M.S. Zubairy, Optical implementation of an R–S flip–flop in polarization encoded optical shadow-casting scheme 91 (1992) 331

Salcedo, J.R., see P.A. Harten 91 (1992) 465
Sarkisov, S.S., see N.B. Kuleshov 91 (1992) 416
Schaub, M., see J. Takacs 91 (1992) 252
Schuller, F., see K.P. Zetie 91 (1992) 210
Sergeev, A.S., see N.S. Ginzburg 91 (1992) 140
Sheng, P., see A.R. McGurn 91 (1992) 175
Shepherd, D.P., see D.C. Hanna 91 (1992) 229
Shepherd, T.J., see M. Harris 91 (1992) 383
Shi, J., see B. Wang 91 (1992) 255
Shinkaryev, M.V., see S.N. Khonina 91 (1992) 158
Siegal, Y., see J.-K. Wang 91 (1992) 77
Snyder, A.W., see L. Poladian 91 (1992) 97
Soifer, V.A., see S.N. Khonina 91 (1992) 158
Sokoloff, J.P., see P.A. Harten 91 (1992) 465
Solymar, L., see J. Takacs 91 (1992) 252
Song, Q.W., S. Hariri and A. Choudhary, An optical interface message processor for fiber communication networks 91 (1992) 304
Stacey, D.N., see K.P. Zetie 91 (1992) 210
Staliunas, K., Optical vortices during three-wave nonlinear coupling 91 (1992) 82
Stamm, U., see V. Petrov 91 (1992) 123
Strizhevskii, V.L., see A.D. Groza 91 (1992) 111
Szlachetka, P., see K. Grygiel 91 (1992) 241

Takacs, J., M. Schaub and L. Solymar, Subharmonics in photorefractive $Bi_{12}TiO_{20}$ crystals 91 (1992) 252
Takagi, Y., see V. Kubecek 91 (1992) 93
Tallents, G.J., see C.L.S. Lewis 91 (1992) 71
Tallet, A., see A.S. Patrascu 91 (1992) 433
Tamil, L.S., An inverse scattering model for optical binary switches 91 (1992) 197
Tan, W., see W. Zhang 91 (1992) 474
Teich, M.C., see T. Li 91 (1992) 41
Telle, H.R., see Ch. Koch 91 (1992) 371
Texier, A., see J.P. Prenel 91 (1992) 29
Tomioka, A., see K. Miyano 91 (1992) 501
Toyooka, S., see S. Matsumoto 91 (1992) 5
Trillo, S., see M. Haelterman 91 (1992) 401
Tropper, A.C., see D.C. Hanna 91 (1992) 229
Tsubakimoto, K., M. Nakatsuka, H. Nakano, T. Kanabe, T. Jitsuno and S. Nakai, Suppression of interference speckles produced by random phase plate using polarization control plate 91 (1992) 9
Tsui, K.H., Wall shorting of space charge field in free electron lasers 91 (1992) 215
Tsui, K.H., N.P. Pimentel, P.P. de Castro and C.A. Massone, The optimization of preionization and the temporal behavior of stimulated uv emissions of an N_2 laser 91 (1992) 360

Uhomoibhi, J.O., see C.L.S. Lewis 91 (1992) 71
Uspleniev, G.V., see S.N. Khonina 91 (1992) 158

Van Linden van den Heuvell, H.B., see B. Broers 91 (1992) 57
Vaughan, J.M., see M. Harris 91 (1992) 383
Venkateswarlu, P., see H. Jagannath 91 (1992) 509
Vigoureux, J.M., see C.A. Risset 91 (1992) 155
Vincent, P., see R. Reinisch 91 (1992) 51
Vitrant, G., see R. Reinisch 91 (1992) 51
Vourdas, A., Superpositions of macroscopically distinguishable states in the presence of thermal noise 91 (1992) 236
Vyas, R., see C. Wang 91 (1992) 347

Wabnitz, S., see M. Haelterman 91 (1992) 401
Walther, H., see J. Dirscherl 91 (1992) 131
Wang, B. and J. Shi, Photoacoustic investigation of surface plasmon polaritons in different Ag interfaces 91 (1992) 255
Wang, C. and R. Vyas, Two-photon interaction of a phased atom with squeezed vacuum state 91 (1992) 347
Wang, J., see J.L. Horner 91 (1992) 189
Wang, J.-K., Y. Siegal, C. Lü and E. Mazur, Generation of dual-wavelength, synchronized, tunable, high energy, femtosecond laser pulses with nearly perfect gaussian spatial profile 91 (1992) 77
Wang, P., see R. Meucci 91 (1992) 444
Warrington, R.B., see K.P. Zetie 91 (1992) 210
Wegener, T., see J. Dirscherl 91 (1992) 131
Wyrowski, F., see H. Lüpken 91 (1992) 163

Yamaguchi, M., see J.J. Baez-Rojas 91 (1992) 34
Yangurazova, L.R., see K.S. Gochelashvily 91 (1992) 66
Yariv, A., see B. Crosignani 91 (1992) 341
Yoshihara, K., see V. Kubecek 91 (1992) 93
Yoshimura, T. and K. Fujiwara, Two-dimensional measurements of surface roughness with doubly scattered image speckle 91 (1992) 168
Yu, J., see J. Liu 91 (1992) 87
Yzuel, M.J., see J. Garcia 91 (1992) 425

Zel'dovich, B.Ya., see A.V. Dooghin 91 (1992) 193
Zetie, K.P., R.B. Warrington, M.J.D. Macpherson, D.N. Stacey and F. Schuller, Interpretation of nonlinear Faraday rotation in samarium vapour 91 (1992) 210
Zhang, W. and W. Tan, The atomic behavior in a strong converging laser field of circular polarization 91 (1992) 474
Zhang, Z. and L. Liu, Solid-state integrated optical parallel dual-rail logic gate module 91 (1992) 185
Zhou, J.-L., see A.-Z. He 91 (1992) 62
Ziad, A., see J. Borgnino 91 (1992) 267
Zubairy, M.S., see R.A. Rizvi 91 (1992) 331

Subject Index to Volume 91

Propagation and transmission in homogeneous media

Plane kinoform lenses for axial stigmatism in finite conjugate imaging, L.N. Hazra, Y. Han and C. Delisle 91 (1992) 1
Determination of the dew point using laser light and a rough surface, S. Matsumoto and S. Toyooka 91 (1992) 5
Suppression of interference speckles produced by random phase plate using polarization control plate, K. Tsubakimoto, M. Nakatsuka, H. Nakano, T. Kanabe, T. Jitsuno and S. Nakai 91 (1992) 9
Coherence induced spectral changes and generalized radiance, K.A. Nugent 91 (1992) 13
Distortion of femtosecond pulses due to chromatic aberration in lenses, A. Federico and O. Martinez 91 (1992) 104
p-Polarized nonlinear surface polaritons near the surface of a saturable self-defocusing medium, A.D. Groza and V.L. Strizhevskii 91 (1992) 111
An elementary presentation of the Goos–Hänchen shift, C.A. Risset and J.M. Vigoureux 91 (1992) 155
Trochoson, S.N. Khonina, V.V. Kotlyar, V.A. Soifer, M.V. Shinkaryev and G.V. Uspleniev 91 (1992) 158
Phase synthesis for array illuminator, H. Lüpken, T. Peter, F. Wyrowski and O. Bryngdahl 91 (1992) 163
Two-dimensional measurements of surface roughness with doubly scattered image speckle, T. Yoshimura and K. Fujiwara 91 (1992) 168
Correction method of secondary reflection effects in measurement of electro-optic coefficient in optically active materials, Ph. Lemaire and M. Georges 91 (1992) 260
Dimensionality of the coherency matrix in polarization optics, Ch. Brosseau and R. Barakat 91 (1992) 408

Propagation and transmission in inhomogeneous media

Strong localization of light in two-dimensional disordered dielectric media, A.R. McGurn, P. Sheng and A.A. Maradudin 91 (1992) 175
Effect of a finite spatial-coherence outer scale on the covariances of angle-of-arrival fluctuations, J. Borgnino, F. Martin and A. Ziad 91 (1992) 267

Optical information, image formation and analysis, optical computing

Logical equivalence of optical symbolic substitution and shadow-casting schemes, A.A.S. Awwal, A.K. Cherri and M.A. Karim 91 (1992) 18
Real-time holographic photoelasticity using BSO, C.S. Narayanamurthy and J.C. Dainty 91 (1992) 23
Wavelength coding laser tomography for flow visualizations, J.P. Prenel, R. Porcar, G. Polidori, A. Texier and M. Coutanceau 91 (1992) 29
Visualization of 3D volume data using an optical model, J.J. Baez-Rojas, S. Ohishi, M. Yamaguchi, N. Ohyama and T. Honda 91 (1992) 34
Chromatic behaviour of in-phase optical lenses, A. Dorsel and B. Geh 91 (1992) 180

Solid-state integrated optical parallel dual-rail logic gate module, Z. Zhang and L. Liu 91 (1992) 185
Analysis of the binary phase-only filter, J.L. Horner, B. Javidi and J. Wang 91 (1992) 189
Phase retrieval from laser beam intensity profiles, A.V. Dooghin, N.D. Kundikova and B.Ya. Zel'dovich 91 (1992) 193
Design of least-mean-square based adaptive optical equalizers, A. Ghosh, J. Barner and P. Paparao 91 (1992) 280
Preconditioning of real-time optical Wiener filters for array processing, A. Ghosh and P. Paparao 91 (1992) 293
Optical implementation of an R–S flip–flop in polarization encoded optical shadow-casting scheme, R.A. Rizvi and M.S. Zubairy 91 (1992) 331
Theoretical analysis of electrode raster performance in reliefographic spatial light modulators with signal recording at the substrate side, N.B. Kuleshov and S.S. Sarkisov 91 (1992) 416
Multichannel rotation-invariant pattern recognition for polychromatic objects using circular harmonic filters, J. Garcia, C. Ferreira, J. Campos, S. Bosch, M.S. Millán and M.J. Yzuel 91 (1992) 425

Optical communications

Performance of a lightwave system incorporating a cascade of erbium-doped fiber amplifiers, T. Li and M.C. Teich 91 (1992) 41
Optical waveguiding in thermooptically perturbed surface layers, J. Paškauskas and D. Čiplys 91 (1992) 46
Radiated diffracted orders in Kerr-type grating couplers, R. Reinisch, M. Nevière, P. Vincent and G. Vitrant 91 (1992) 51
Low-interaction solitary waves, L. Poladian, A.W. Snyder and D.J. Mitchell 91 (1992) 97
All-optical analog-to-digital and digital-to-analog conversion implemented by a nonlinear fiber interferometer, J.-M. Jeong and M.E. Marhic 91 (1992) 115
An inverse scattering model for optical binary switches, L.S. Tamil 91 (1992) 197
Dispersion relations of multiple quantum well waveguides with arbitrary refractive index profile base period, Z.Q. Cao and C.N. Ironside 91 (1992) 203
A side-pumped Nd:YAG epitaxial waveguide laser, D.C. Hanna, A.C. Large, D.P. Shepherd, A.C. Tropper, I. Chartier, B. Ferrand and D. Pelenc 91 (1992) 229
An optical interface message processor for fiber communication networks, Q.W. Song, S. Hariri and A. Choudhary 91 (1992) 304
A new method to determine the refractive index of planar optical waveguides, S.P. Pogossian 91 (1992) 334
Bistable dark soliton solution in dispersive media with a linear and quadratic intensity-depending refraction index change, J. Herrmann 91 (1992) 337
Slowly-varying approximation and coupled-mode equations in guiding structures, B. Crosignani, P. Di Porto and A. Yariv 91 (1992) 341

Atomic and molecular physics

Large interference effects of small chirp observed in two-photon absorption, B. Broers, H.B. van Linden van den Heuvell and L.D. Noordam 91 (1992) 57
Interpretation of nonlinear Faraday rotation in samarium vapour, K.P. Zetie, R.B. Warrington, M.J.D. Macpherson, D.N. Stacey and F. Schuller 91 (1992) 210
Resonance shift due to correlated amplitude and frequency variations, J.C. Camparo and C.M. Klimcak 91 (1992) 343

Two-photon interaction of a phased atom with squeezed vacuum state, C. Wang and R. Vyas 91 (1992) 347

Condensed matter

A new definition of laser damage threshold in thin films: optical breakdown threshold, A.-Z. He, X.-W. Ni, J. Lu, J.-L. Zhou and Z. Ma 91 (1992) 62
A 472.2 nm bismuth halide laser, D.R. Jones and C.E. Little 91 (1992) 223
Optical gradient forces on colloidal crystals: generation of spatially complex structures, C.L. Adler and N.M. Lawandy 91 (1992) 354

Plasmas

Fluorescence model of noble gas dimers in pulsed self-sustained discharges, K.S. Gochelashvily, A.V. Demyanov, I.V. Kochetov and L.R. Yangurazova 91 (1992) 66
An injector/amplifier double target configuration for the Ne-like Ge X-ray laser scheme, C.L.S. Lewis, D. Neely, D.M. O'Neill, J.O. Uhomoibhi, M.H. Key, Y. Al-Hadithi, G.J. Tallents and S.A. Ramsden 91 (1992) 71

Lasers

An injector/amplifier double target configuration for the Ne-like Ge X-ray laser scheme, C.L.S. Lewis, D. Neely, D.M. O'Neill, J.O. Uhomoibhi, M.H. Key, Y. Al-Hadithi, G.J. Tallents and S.A. Ramsden 91 (1992) 71
Generation of dual-wavelength, synchronized, tunable, high energy, femtosecond laser pulses with nearly perfect gaussian spatial profile, J.-K. Wang, Y. Siegal, C. Lü and E. Mazur 91 (1992) 77
Theory of cw passive mode-locking of solid state lasers with addition of nonlinear index and group velocity dispersion, V. Petrov, D. Georgiev, J. Herrmann and U. Stamm 91 (1992) 123
A dye laser spectrometer for high resolution spectroscopy, J. Dirscherl, B. Neizert, T. Wegener and H. Walther 91 (1992) 131
Wall shorting of space charge field in free electron lasers, K.H. Tsui 91 (1992) 215
Transient mode-beating in confocal unstable passive resonators, I. Iparraguirre 91 (1992) 218
A 472.2 nm bismuth halide laser, D.R. Jones and C.E. Little 91 (1992) 223
A side-pumped Nd:YAG epitaxial waveguide laser, D.C. Hanna, A.C. Large, D.P. Shepherd, A.C. Tropper, I. Chartier, B. Ferrand and D. Pelenc 91 (1992) 229
The optimization of preionization and the temporal behavior of stimulated uv emissions of an N_2 laser, K.H. Tsui, N.P. Pimentel, P.P. de Castro and C.A. Massone 91 (1992) 360
Acousto-optically induced unidirectional operation of a ring laser: a feedback mechanism, W.A. Clarkson, A.B. Neilson and D.C. Hanna 91 (1992) 365
Bridging THz-frequency gaps in the near ir by coherent four-wave mixing in GaAlAs laser diodes, Ch. Koch and H.R. Telle 91 (1992) 371
Development of coherence in the high-gain Compton free-electron laser, C. Penman 91 (1992) 377
Noise and gain in sub-threshold laser modes, M. Harris, R. Loudon, T.J. Shepherd and J.M. Vaughan 91 (1992) 383
Multi-conical instability in the passive ring cavity: linear analysis, A.S. Patrascu, C. Nath, M. Le Berre, E. Ressayre and A. Tallet 91 (1992) 433
Analysis of the dynamical behavior of a Q-switched CO_2 laser: the linear and the nonlinear regime, R. Meucci, M. Ciofini and P. Wang 91 (1992) 444

A theoretical study of the dynamical behavior of single quantum-well semiconductor lasers, R. Müller 91 (1992) 453
Noise in a dual dye jet hybridly mode-locked near infrared femtosecond laser, P.A. Harten, S.G. Lee, J.P. Sokoloff, J.R. Salcedo and N. Peyghambarian 91 (1992) 465

Nonlinear optics

Radiated diffracted orders in Kerr-type grating couplers, R. Reinisch, M. Nevière, P. Vincent and G. Vitrant 91 (1992) 51
Optical vortices during three-wave nonlinear coupling, K. Staliunas 91 (1992) 82
Investigation of picosecond relaxation processes in cresyl violet, J. Liu, S. Huang, W. Qin and J. Yu 91 (1992) 87
Lithium triborate picosecond optical parametric oscillator, V. Kubecek, Y. Takagi, K. Yoshihara and G.C. Reali 91 (1992) 93
Low-interaction solitary waves, L. Poladian, A.W. Snyder and D.J. Mitchell 91 (1992) 97
Amplitude-squared and frequency sum squeezing in the three-level atom, A.-S.F. Obada and A.M. Abdel-Hafez 91 (1992) 99
Distortion of femtosecond pulses due to chromatic aberration in lenses, A. Federico and O. Martinez 91 (1992) 104
p-Polarized nonlinear surface polaritons near the surface of a saturable self-defocusing medium, A.D. Groza and V.L. Strizhevskii 91 (1992) 111
Theory of cw passive mode-locking of solid state lasers with addition of nonlinear index and group velocity dispersion, V. Petrov, D. Georgiev, J. Herrmann and U. Stamm 91 (1992) 123
A dye laser spectrometer for high resolution spectroscopy, J. Dirscherl, B. Neizert, T. Wegener and H. Walther 91 (1992) 131
Superradiance in the layers of excited quantum and nonisochronous classical oscillators, N.S. Ginzburg and A.S. Sergeev 91 (1992) 140
On the possibility of generation of picosecond pulses in an excimer laser by fast periodic *Q*-switching, J. Badziak, A. Dubicki and J. Piotrowski 91 (1992) 147
Superpositions of macroscopically distinguishable states in the presence of thermal noise, A. Vourdas 91 (1992) 236
Chaos in second-harmonic generation of light. The case of a train of pulses, K. Grygiel and P. Szlachetka 91 (1992) 241
Proposal for generating even and odd coherent states, C.C. Gerry 91 (1992) 247
Subharmonics in photorefractive $Bi_{12}TiO_{20}$ crystals, J. Takacs, M. Schaub and L. Solymar 91 (1992) 252
Photoacoustic investigation of surface plasmon polaritons in different Ag interfaces, B. Wang and J. Shi 91 (1992) 255
Theory of coherent one- and two-photon interaction in a three-level system, E. Gaižauskas and G. Gedvilas 91 (1992) 312
Defect-mediated spatial complexity and chaos in a phase-conjugate resonator, G. Indebetouw and S.R. Liu 91 (1992) 321
Improvement of response speed of a $BaTiO_3$ self-pumped phase-conjugate mirror by crystal heating and beam focusing, T. Honda and H. Matsumoto 91 (1992) 390
Reflectivity measurements of broad-band stimulated Brillouin scattering mirrors, A.A. Filippo and M.R. Perrone 91 (1992) 395
Dissipative modulational instability in a nonlinear dispersive ring cavity, M. Haelterman, S. Trillo and S. Wabnitz 91 (1992) 401

The atomic behavior in a strong converging laser field of circular polarization, W. Zhang and W. Tan 91 (1992) 474
Photorefractive phase conjugation of an image field: fidelity analysis, M. Carrascosa 91 (1992) 481
Theory of symmetry-forbidden second harmonic generation in optical fibers, M.I. Dyakonov and A.S. Furman 91 (1992) 489
A simple and accurate method to determine the third-order nonlinear susceptibility of thin films, K. Miyano, T. Nishiwaki and A. Tomioka 91 (1992) 501
Effect of counterpropagating beams on beam fanning in $BaTiO_3$, H. Jagannath and P. Venkateswarlu 91 (1992) 509